

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of the claims in the application:

Claims 1-70 (Cancelled).

71. (New) A system for providing a device driver located on a server domain for a peripheral device located on a desktop unit domain, said system comprising:

a network;

a device service at said server domain, said device service requesting said peripheral device;

a remote bus proxy at said server domain, said remote bus proxy communicating with said peripheral device;

a remote device driver at said desktop unit and locally coupled to said peripheral device; and

a device manager at said server domain, said device manager controlling communications over said network between said device service at said server domain and said remote device driver at said desktop unit domain;

wherein said device manager is further adapted to approve requests to read or send data to said peripheral device and to control accessibility to said peripheral device.

72. (New) The system of Claim 71, wherein said network comprises a wide area network and wherein said device manager is further adapted to discover said device service, enable said device service to use said peripheral device via said remote device driver, notify other device services of an availability of said peripheral device, and track a connection over said network of said peripheral device with said device service.

73. (New) An apparatus for providing access to a plurality of devices located on a desktop domain over a network, comprising:

a desktop domain having a plurality of devices;
a network;
a server domain coupled to said desktop domain via said network;
a remote device driver locally connected to said plurality of devices;
a plurality of driver services configured to remotely control one or more of said plurality of devices, wherein said remote device driver tracks which one or more of said plurality of driver services communicate with which of said one or more of said plurality of devices; and

a device manager configured to register said one or more of said plurality of driver services with said remote device driver to access said one or more of said plurality of devices;

wherein said device manager is further configured to approve requests to read data from said one or more of said plurality of devices, to approve requests to send data to said one or more of said plurality of devices, and to control accessibility to said one or more of said plurality of devices;

wherein said plurality of driver services and said device manager reside in said server domain;

wherein said plurality of drivers services and said device manager are coupled across said network to said remote device driver; and

wherein said remote device driver resides in said desktop unit domain.

74. (New) The apparatus of Claim 73, wherein said desktop unit domain comprises a plurality of Human Interface Devices (HIDs) locally connected to said plurality of devices, wherein said plurality of devices are peripherals of said plurality of HIDs, and wherein said server domain comprises a plurality of servers.

75. (New) The apparatus of Claim 74, wherein said plurality of devices are separated from said server domain via said network and wherein said network comprises a wide area network.

76. (New) The apparatus of Claim 75, wherein said plurality of HIDs can only operate said plurality of devices via said plurality of driver services residing in said server domain.

77. (New) The apparatus of Claim 73, wherein said remote device driver resides in a Human Interface Device (HID) for providing a user interface to operate said one or more of said plurality of devices.

78. (New) The apparatus of Claim 77, further comprising:
a bus device driver locally coupling said remote device driver to said one or more of said plurality of devices; and
a bus proxy remotely coupling said one or more of said plurality of driver services to said remote device driver.


79. (New) The apparatus of Claim 78, wherein said one or more of said plurality of devices are locally connected to said HID and wherein said HID can only operate said one or more of said plurality of devices via said plurality of driver services.

80. (New) The apparatus of Claim 79, further comprising:
a session manager configured to associate one or more sessions with said one or more of said plurality driver services; and
an authentication manager configured to associate said one or more sessions with said HID.

81. (New) The apparatus of Claim 77, wherein said device manager is configured to notify a first driver service of a loss of a network connection to a first device when an associated session of said HID ends.

82. (New) The apparatus of Claim 81, wherein said device manager is further configured to notify said remote device driver that said first driver service is no longer permitted to control said first device.

83. (New) The apparatus of Claim 82, wherein said remote device driver is configured to notify said device manager of a configuration change in said one or more of said plurality of devices.



84. (New) The apparatus of Claim 73, wherein said device manager is further configured to enforce a device access policy for registering said one or more of said plurality of driver services.

85. (New) The apparatus of Claim 84, wherein said device manager is further configured to locate said one or more of said plurality of devices and to maintain an inventory of said one or more of said plurality of devices and said one or more of said respective controlling driver services.

86. (New) The apparatus of Claim 73, wherein said remote device driver comprises a filter for permitting and denying access by one or more of said plurality of driver services and wherein said filter is provided by said device manager via said network.

87. (New) A method for providing access to one or more remote devices over a network, comprising:

receiving by a device manager at a server domain of a device request from a driver service at said server domain;

registering by said device manager of said driver service with a remote device driver at a desktop domain; and

communicating by said driver service with a remote device at said desktop domain via said remote device driver;

wherein said registering by said device manager of said driver service comprises controlling accessibility to said remote device, approving requests to read from said remote device, and approving requests to send data to said remote device.

88. (New) The method of Claim 87, further comprising sending device configuration information by said remote device driver to said device manager.

89. (New) The method of Claim 88, further comprising locally exposing said remote device to said remote device driver via a bus device driver.

90. (New) The method of Claim 89, further comprising:
associating a session with said driver service via a session manager; and
associating said session with a Human Interface Device (HID) at said desktop unit domain via an authentication manager.

91. (New) The method of Claim 90, wherein said remote device is locally connected to said HID and wherein said HID operates said remote device via said driver service.

92. (New) The method of claim 87, wherein said registering said driver service by said device manager of said driver service further comprises enforcing a device access policy.

93. (New) The method of Claim 87, further comprising maintaining in said remote device driver an association between said remote device and said driver service.

94. (New) The method of Claim 87, further comprising maintaining by said device manager of a first inventory of devices located locally on a Human Interface Device (HID) at said desktop unit domain and a second inventory of respective driver services at said server domain controlling said inventoried devices.

95. (New) The method of Claim 87, further comprising notifying said driver service by said device manager of a loss of a network connection to said remote device.

96. (New) The method of Claim 95, wherein said loss of said network connection to said remote device is in response to the closing of an associated session by a user on a Human Interface Device (HID) at said desktop unit domain.

97. (New) The method of Claim 96, further comprising notifying said remote device driver by said device manager that said driver service is no longer permitted to control said remote device.

98. (New) The method of Claim 97, wherein said network connection comprises a wide area network connection.

99. (New) An apparatus for providing access to one or more peripheral devices over a network, comprising:

a wide area network;

a plurality of peripheral devices;

a Human Interface Device (HID) locally coupled to said peripheral devices, said HID comprising a remote device driver coupled to said plurality of peripheral devices; and

a server coupled to said HID over said wide area network, said server comprising:

a plurality of driver services configured to remotely control said plurality of peripheral devices for said HID over said wide area network, wherein said remote device driver tracks which one or more of said plurality of driver services communicate with which one or more of said plurality of peripheral devices; and

a device manager configured to register said one or more of said plurality of driver services with said remote device driver to access said one or more of said plurality of peripheral devices;

wherein said device manager is further configured to approve requests to read data from said one or more of said plurality of peripheral devices, to approve requests to send data to said one or more of said plurality of peripheral devices, and to control accessibility to said one or more of said plurality of peripheral of remote devices.

100. (New) The apparatus of Claim 99, wherein said plurality of driver services are separated from said HID via said wide area network.

101. (New) The apparatus of Claim 100, wherein said device manager is also configured to discover said one or more of said plurality of driver services, to enable said one or more of said plurality of driver services to use said one or more of said plurality peripheral devices via said remote device driver, to notify other driver services of an availability of said one or more of said plurality of peripheral devices, and to track a connection over said wide area network of said one or more said plurality of peripheral devices with said one or more of said plurality of driver services.
